

REMARKS

Reconsideration of this application is respectfully requested. Claims 1, 6, 11, and 15 have been amended and no new matter has been added.

1. Claims 1, 3, 4, 6, 8, 9, 15, 17 and 18 are patentable under 35 U.S.C. §103(a) over Chen, (US Patent 6,064,486, hereinafter “Chen”), in view of Bowes, (US Patent 6,778,275, hereinafter “Bowes”).

Claims 1, 6, and 15, as amended, include the element of an intermediate layer positioned between the first and second layers. In contrast, Chen discloses a substrate with an alignment mark in direct contact with a coating (*Chen*, col. 59-61) and Bowes discloses a pattern imaged onto a wafer with a second layer that includes a plurality of features in direct contact with a third layer that includes an inner box. *Bowes*, col. 1, lines 1-6. Thus, the layers of both Chen and Bowes are in direct contact with one another. Therefore, neither Chen nor Bowes, alone, or in combination with one another, teach or suggest an intermediate layer positioned between a first and second layer as recited in claims 1, 6, and 15.

Additionally, the Examiner points to the alignment marks of Chen as shown in Figures 2A and 2B, as teaching a second feature buried under a first layer that affects a shape of an area of the first layer. Final Office Action, dated November 25, 2008, page 4. In Chen, the alignment mark is a trench or a mesa on a substrate. *Chen*, col. 5, lines 45-49. “The alignment marks are conventionally processed according to a fabrication process that forms active devices such as transistors on the substrate. These fabrication processes produce a respective coating on the respective substrates including on the respective alignment marks” and above the alignment marks asymmetries in the coating are formed. *Id.*, Figures 2A and 2B and col. 5, lines 56-62. Thus, the alignment mark of the first layer causes the asymmetry in the coating directly above it. Hence, the asymmetries of Chen can be formed only when directly overlapping the alignment mark.

Bowes discloses a pattern imaged onto a wafer with a second layer that includes a plurality of features and a third layer that includes an inner box. *Bowes*, col. 1, lines 1-6. Some of the features in the second layer do not overlap with the inner box of the third layer. See e.g. *Id.*, Figure 6. However, the features in the second layer of Bowes do not affect a shape of an area of the third layer. Thus, Bowes fails to teach or disclose a second feature formed on a second layer of an inspected object, wherein the second feature is buried under the first layer and

affects a shape of an area of the first layer, but the first feature and the second feature are not overlapping.

Furthermore, there is no motivation to combine the asymmetries of the coating in Chen with the plurality of features of the Bowes' third layer because the asymmetries of the coating in Chen are only formed in areas overlapping the feature and there is no reason provided in either Chen or Bowes, that the features of the second layer of Bowes, that do not overlap with the inner box of the third layer will affect the shape of an area of the third layer. Thus, the combination of Chen and Bowes fail to render the second feature of claims 1, 6, and 15 obvious.

Hence, for at least the reasons provided above, neither Chen nor Bowes, alone, or in combination with one another, teach or suggest each and every element of claims 1, 6, and 15. Thus, claims 1, 6, and 15 are patentable over the combination of Chen and Bowes. Dependent claims 3, 4, 8, 9, 17, and 18 depend either directly, or indirectly, from independent claims 1, 6, and 15, respectively, and are patentable over the combination of Chen and Bowes at least by virtue of this dependency.

2. Claims 2, 7, 11-14 and 16 are patentable under 35 U.S.C. §103(a) over Chen, in view of Bowes, and further in view of Sawahata, (US Patent 6,501,077, hereinafter "Sawahata").

As noted above with regard to claims 1, 6, and 15, neither Chen, nor Bowes, alone, or in combination with one another, teach or suggest an intermediate layer positioned between a first and second layer as recited in claim 11 and Sawahata fails to overcome this deficiency. Claims 2, 7, 12-14, and 16 depend either directly, or indirectly, from independent claims 1, 6, 11, and 15, respectively. For at least the reasons provided above with regard to claims 1, 6, 11, and 15, the combination of Chen, Bowes, and Sawahata fail to disclose each and every element required by claims 2, 7, 12-14, and 16 by virtue of their dependency on claims 1, 6, 11, and 15, respectively. Sawahata fails to overcome these deficiencies. As such, the combination of Chen, Bowes, and Sawahata fails to teach or suggest each and every element required by claims 2, 7, 11-14 and 16. Thus, for at least the reasons provided above, claims 2, 7, 11-14 and 16 are patentable over Chen in view of Bowes and Sawahata.

3. Claims 5 and 10 are patentable under 35 U.S.C. §103(a) as over Chen, in view of Bowes, and further in view of Hiroi, (US Patent 6,172,365, hereinafter "Hiroi").

Dependent claims 5 and 10 depend either directly, or indirectly, from independent claims 1 and 6, respectively. For at least the reasons provided above with regard to claims 1 and 6 the combination of Chen and Bowes fails to disclose each and every element required by claims 5 and 10 by virtue of their dependencies on claims 1 and 6, respectively. Hiroi fails to overcome these deficiencies. As such, the combination of Chen, Bowes, and Hiroi fails to teach or suggest each and every element required by claims 5 and 10. Thus, for at least the reasons provided above, claims 5 and 10 are patentable over Chen in view of Bowes and Hiroi.

Accordingly, Applicant respectfully requests removal of the 35 U.S.C. §103(a) rejections of the present claims.

If there are any additional fees due in connection with this communication, please charge Deposit Account No. 19-3140.

Respectfully submitted,
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